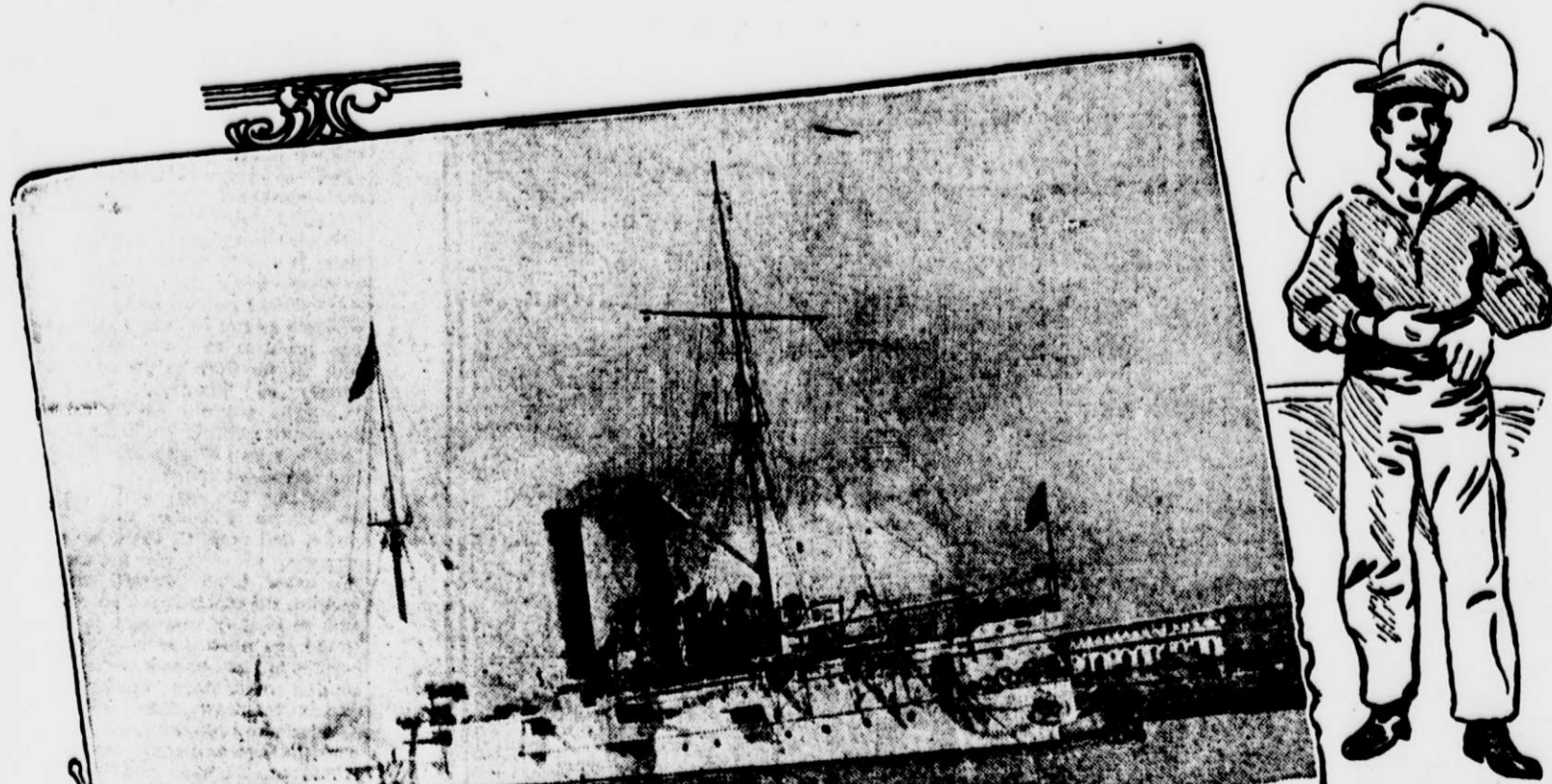


# OLD WARSHIPS FOR SALE AT BARGAIN PRICES



U.S.S. "DETROIT"  
SHE CALLED THE  
BLUFF OF BRAZILIAN  
REVOLUTIONISTS in 1894.

THEY had a bargain sale of old warships at the Navy Department last week. Only five vessels were offered there, but there are many others that will have to be disposed of shortly. If you are of a patriotic turn of mind, keep your eyes open for the departmental advertisements, because some of the old craft which have been stricken from the navy list and condemned for public auction are vessels with historic records. Not since 1865 has the Navy Department had so many ships to dispose of, and this state of affairs is an illustration of the manner in which the sea defenses of the United States have developed since the beginning of the new navy in the early '80s.

One of the vessels bid upon at the recent sale has no architectural relation to the modern man of war. That is the old frigate *Santee*, built at Kittery, Me., away back in 1855. There is probably no ship in the active fleet to-day which is more closely identified with the educational years of naval officers than this same old wooden craft.

The *Santee* saw service during the civil war, but while on the Galveston blockade her crew suffered severely from scurvy and she was sent North to refit and to give her men a chance to recover. She never returned to the front, but was despatched to the Naval Academy, where in time she became the barracks ship of the station. Every naval officer who as a midshipman or naval cadet suffered arrest or confinement for some infraction of the regulations of the academy had good reason to remember the old frigate. Borish pranks of all sorts as well as graver violations of the rules commonly meant so many hours or days or weeks of confinement aboard the *Santee*. The purchaser of the vessel could do a good business in souvenirs if he would have the old craft worked into mementoes of former academic days.

With the *Santee* the Navy Department put up at auction the *Atlanta*, the *Yankee*, the *Yosemite* and the little gunboat *Albatross*, which was captured in Cuban waters during the war with Spain. The *Yankee* and *Yosemite* are converted merchantmen which were purchased for auxiliary service during that war. The sale of these ships awakens no special interest. The passing of the *Atlanta* is a different matter.

The *Atlanta* was one of the nucleus of the new navy and her long active career, compared with the service given by later built men of war, has reflected credit on her builder, John Roach of Chester, who laid the foundation of the present navy and offered financial ruin because of his courage and his thoroughness with which he did his work. In September of 1880 the squadron of revolution, popularly known as the white squadron, was organized. It consisted of the flagship *Chicago*, the sister cruisers *Atlanta* and *Boston* and the then speedy gunboat *Yorktown*. It was under the command of Rear Admiral John G. Walker.

## White Squadron Dispersed.

The ships assembled in New York harbor and early in December sailed away to Europe to show what America could produce in the way of up-to-date ships of steel. Their cruise in European waters called forth a great deal of commendatory criticism. Now, twenty-three years later, substantially every one of those ships, lapsing out of the naval service.

Nearly two years ago the *Boston* was stricken from the navy list, but was restored some months later to do temporary duty as a station ship at Puget Sound. The *Chicago* is making a last shift of it with the Massachusetts Navy Militia before following the rest of her memorial squadron mates. The *Yorktown* has been condemned and will shortly be put under the hammer.

The only ship of the white squadron to go into battle was the *Boston*. She took an effective part in the battle of the list of May, 1898, when under Dewey's leadership the Spanish naval forces were destroyed off Manila. Commanded by Capt. Robey D. Evans the *Yorktown* backed up our flag at Valparaiso when our relations with Chile were decidedly strained, in 1891, because of the attack upon members of the crew of the cruiser *Baltimore* and a subsequent attitude toward the contract steamer *Itata*. Perhaps the most effective service of the *Yorktown* was that performed under Fighting Bob in the Herring Sea while enforcing the modus vivendi concluded between the Government and that of Great Britain. In that trying service Capt. Evans proved that he was as much of a diplomat as a man of war.

The last previous lot of condemned naval vessels that were sold included the cruiser *Detroit*, the gunboat *Bennington*,

the old sloop of war *Iroquois*, the converted yacht *Hornet* and *Siren* and the torpedo boats *Stiletto* and *Winslow*.

Early in 1894 the insurrection in Brazil had reached a crisis which seriously menaced American and foreign merchant shipping at Rio de Janeiro, and the North Atlantic Squadron was ordered south under Rear Admiral A. E. K. Benham. By the time the ships reached Rio foreign merchant craft were tied up at the city's docks under the guns of the Brazilians and unable either to load or to discharge their cargoes.

Admiral Benham requested the release of the American mercantiles, and failing to get a proper response got a time limit.

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OLD STEAM FRIGATE  
"WABASH" BUILT IN  
PHILADELPHIA in 1855.



IRON-CLAD RAM  
"DUNDERBERG" BUILT FOR  
U.S. NAVY and sold to  
FRANCE in 1866.

As there was no show of yielding on the part of the Brazilian officials the little *Detroit*, commanded by Capt. Bronson, cleared for action and in the face of the Brazilian batteries and the native men of war headed boldly for the wharves and the detained merchant craft. The insurgents fired and the little *Detroit* promptly answered with her own rapid fire guns. There was no real fighting, the *Detroit's* action showed that Admiral Benham meant business and the Brazilians yielded.

## Fought in Spanish War.

The torpedo boat *Winslow* is memorable because of the part she played in the action of Cardenas, Cuba, on May 11, 1898. Commanded by Lieut. John B. Bernadou, she led the attack on some Spanish gunboats which had sought shelter within the harbor. Suddenly the enemy opened fire with precision from a shore battery and in a few moments the *Winslow* was disabled. Lieut. Bernadou was wounded and Ensign Worth Bagley and three enlisted men were killed, while two other sailors were hurt. Those four deaths were the first lives lost in battle during the Spanish-American war.

The converted yacht *Hist* and *Hornet*, both of which have now passed out of the naval service, proved useful vessels during the naval operations in the West Indies in 1898. On June 30 the *Hist* and *Hornet* while making a reconnaissance between Cape Cruz and Manzanillo, were engaged with the enemy's vessels, field batteries and infantry at the latter place. The *Hornet* was struck many times and had her main steam pipe out, being thereby totally disabled. She was towed out of danger by the *Wompatuck*.

## WONDERFUL THINGS WHICH MODERN RESEARCH METHODS HAVE DISCOVERED ABOUT MOLECULES

By DR. LEONARD KEENE HIRSHBERG

The existence of molecules, hitherto a matter of theory and reasoning, has at last been actually proved. When the minuteness of a molecule is considered the wonderful results of modern research methods will begin to be appreciated.

In fifteen grains of air there are molecules to the number of 2.7x10 raised to the nineteenth power. If you had started to count one molecule a second 100,000,000 years ago you would not yet have reached enough of them to detect chemically.

One alpha particle of radium travels

a million miles a second. Its kinetic energy is that of a mass weighing one grain moving at a velocity of one-twentieth of an inch a second. This is more energy than the eye receives from a candle one yard away. The eye can see the effects of molecules as they strike a screen composed of willemites. These flashes have been counted by Geiger and photographed by C. T. R. Wilson as they shoot through the air. The track, as the air molecules are shattered, is left electrically charged. These form condensation nuclei for the watery vapor present in the atmosphere.

Wilson used a large flat dish with a

Again, on July 18, the *Hist* and *Hornet* made another attack upon the Spanish forces at Manzanillo and succeeded in destroying the enemy's gunboats. Once more the *Hist* distinguished herself on August 12 in a third assault upon Manzanillo. In this action the *Hist* and her consort—the *Newark*, *Resolute*, *Suwanee* and *Oceola*—were assisted by the *Albatross*, which had previously been captured from the Spaniards. After her sale to a bidder in New Orleans nearly two years ago the *Hornet* was purchased

by Honduran revolutionists, but the United States authorities kept her from getting away on her filibustering expedition. The *Bennington* is doing duty to-day as a floating storehouse for molasses at Honolulu. The *Stiletto* was usable in her day as the first of the torpedo boats of the new navy. She was built of wood and designed by the Horreshoffs of Bristol, R. I. Her speed of eighteen knots an hour was deemed remarkable at the time of her construction.

In 1883 Congress limited the cost of repairs of wooden vessels to 20 per cent. of the price of a new ship of similar size and nine years later the limit was reduced to 10 per cent, an exception being in the case of certain historic vessels, such as

the active list of the navy. The rule that now governs the condemning of fighting craft is different from that which used to prevail and this explains why wooden ships have seemingly endured longer in service than the vessels of modern steel construction.

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The moving or kinetic energy of these

## Other Ships of the Navy to Be Disposed of Soon Besides the Five Sold Recently—Historic Craft Thus Auctioned—Buyers and What They Do With Their Bargains

The taxpayer may wonder how the selling prices of these condemned vessels compare with the contract or the purchase cost. The following figures will give a pretty fair idea of what the Government gets after warships have finished their years of active service:

Name	Contract or Purchase Price	Selling Price
Detroit	\$612,500	\$20,000
Bennington	490,000	11,250
Winslow	117,500	3,100
Hist	97,500	2,250
Siren	65,000	2,421
Stiletto	40,000	2,852
	75,000	277

What the purchasers may have made out of the transactions is, of course, unknown to the public. The *Detroit* was first commissioned in 1893 and the *Bennington* was then two years in service, and in estimating the depreciation of these ships we must bear in mind the number of years of their usefulness on

the Hartford and Kearsarge. Again, in 1907 Congress set the cost of repairs upon steel ships at a limit of 20 per cent. This recalls a bit of history which is revived in the condemnation of the old wooden steam sloop of war *Nipsic*, which is soon to be sold.

The *Nipsic* was "repaired" at the navy yard in Washington from 1873 to 1878 and her repairing virtually constituted her rebuilding. At that time Congress was indisposed to make substantial appropriations for any increase of the navy, but did not balk at providing for upkeep and repairs. Accordingly the old cast iron hawse pipes of the original *Nipsic* were used as a basis around which to construct a new craft. This stretching of the term repairs led to the act of Congress of 1888 and put a stop to the long established practice of practically remaking some of the old ships of the service.

The striking of the *Nipsic* from the navy list means the disappearance of a ship which was vividly in the minds of the public twenty-three years ago. On March 15 and 16, 1880, the *Nipsic*, *Trenton* and *Vandalia* were at Apia, Samoa, in company with the British ship *Calliope* and the German ships *Adler*, *Olga* and *Eber* when a tropical hurricane swept down upon the harbor. The country was thrilled when the news reached the United States that the *Trenton* and the *Vandalia* had been wrecked and many lives had been lost, but there was a sense of deep pride over the manner in which officers and sailors alike had borne themselves.

Alone of all the vessels there, the *Calliope* succeeded in making her way out of the harbor into the offing. As she passed the flagship *Trenton*, the American bluejackets cheered the Britishers on while the *Trenton's* band played them a godspeed. The *Nipsic*, although battered and driven ashore, was again safely floated after the storm subsided. Such repairs as could be made on the spot were executed, and with a crippled screw and a jury rudder the *Nipsic* made her way to Honolulu, where she was docked and put into better condition to continue her journey on to San Francisco.

**Century Old Independence.**  
There is another wooden ship which has been stricken from the navy list recently, and that is the steam frigate

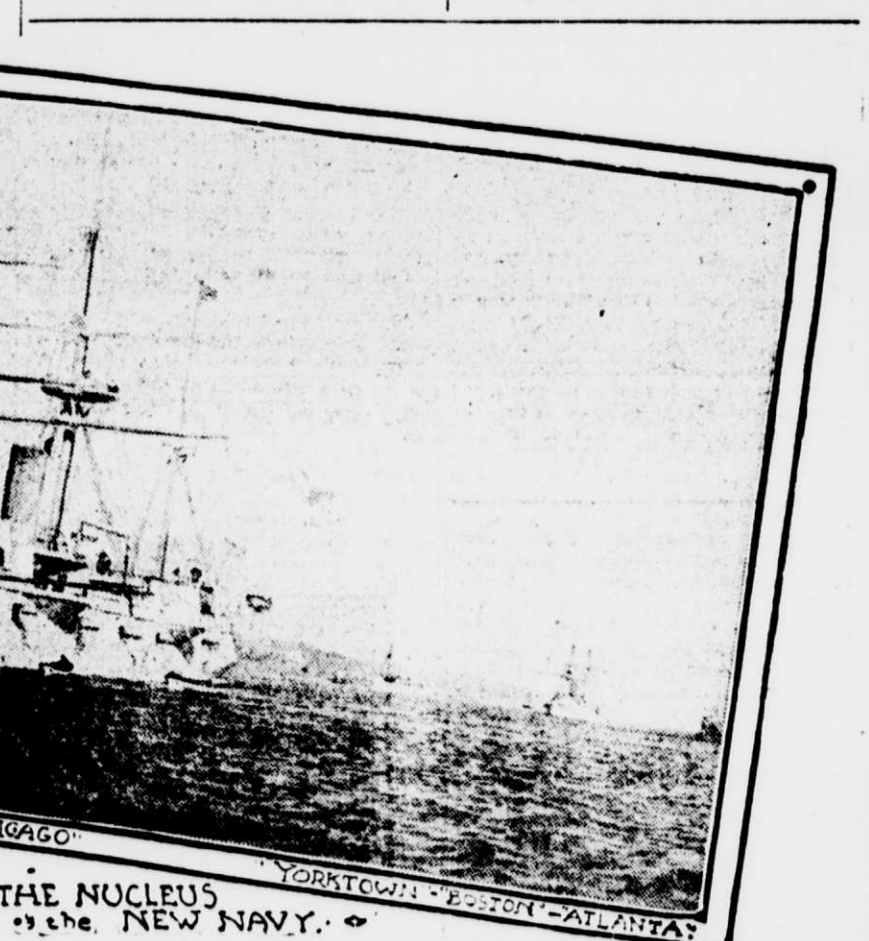
by side with a modern dreadnought she will not make an imposing figure, but in her time she was formidable, and surviving as she does to-day nearly a century from the time her keel was laid she typifies the changes that have been wrought in warfare upon the sea.

Quite apart from the mere physical deterioration of the steel fighting ship, these vessels cease to be effective fighting units by reason of rapid advances in the art of warfare. It is a maxim now that no man of war can be of any military value after a life of twenty years. Because of this limit many of the older ships of the navy will soon be condemned for sale, and probably some of these craft will be acceptable to the minor maritime powers.

## Sold to Other Nations.

This naturally suggests the question, What vessels has this country ever sold to foreign nations and what service have those vessels done for their purchasers? It might quite properly be said that we gave Japan her first armored man of war, and in that transaction we got nearly half a million dollars. The Confederate States purchased early in 1865 an ironclad ram then named the *Sphinx* and secretly constructed by Messrs. Arman of Bordeaux, France, for the Confederate Government. Her battery consisted of one 300 pounder and two 70 pounder Armstrong guns. To avoid the international complications the *Sphinx* was sold under certain conditions to the Government of Denmark, and while en route to that country she was taken into a Swedish port and nominally sold to a Swedish gentleman. She was subsequently delivered to the Confederate agent and his officers in the open sea off the coast of France.

The transaction had not escaped the notice of the United States representatives in Europe, and the *Stonewall*, as the ship became known, was watched by Federal cruisers and followed from port to port as she zigzagged her way across the Atlantic. Finally the *Stonewall* reached Havana in May, 1865, and to escape capture was put out of commission and turned over to the custody of the Spanish Captain-General of the island. The Spanish authorities later delivered the *Stonewall* to the United States, and in 1867 we sold the ship to Japan together with two sailing craft which became training ships for the Mikado's navy.



THE NUCLEUS of the NEW NAVY.

*Wabash*, which has served as a receiving ship at the navy yard in Boston for a good many years. The *Wabash* was built at the old navy yard in Philadelphia in 1835 and was put in commission early in 1861. She did good service during the civil war and in her day was considered one of the very finest ships of her class in the world. The *Wabash* will soon be put under the hammer.

But the most interesting of the old wooden ships which have recently been put out of commission is the *Independence*, which has been the receiving ship at the Mare Island navy yard for more than half a century. The *Independence* was built in Boston and launched in 1814 and on July 3, 1815, sailed away from Boston for the Mediterranean as the flagship of Commodore Bainbridge. At that time the *Independence* was a seventy-four gun ship of the line, had a displacement of 2,237 tons, old measurement, and represented a total cost of \$21,810. Later she was razed to a ship of fifty-four guns.

The *Independence* was the only ship of the line that was aloft during the War of 1812, and the first ship of the line of the United States Navy, if we except the *America* of seventy-four guns, which was given to the French nation before her launching. The *Independence* was the first ship of her class to display the Stars and Stripes abroad. It is proposed to make her one of the features of the Panama Pacific International Exposition. Side

At the close of the civil war we had two single turreted monitors just completed in Cincinnati, vessels of a trifle less than 1,100 tons, which were known as the *Catawba* and the *Onondaga*. Each of these vessels represented a cost of \$630,000, and these were profitably disposed of to Peru. They served the very useful purpose of keeping Chile at arm's length more than once during their years of active service.

Another vessel, the *Galatea*, of 1,244 tons, carrying eleven guns, was sold to the Haitian Government in August, 1845. The ship was built here in New York by the Neptune Steamship Company in 1863, and for years afterward the *Galatea* was the principal craft of the Haitian navy.

During the civil war Admiral Lee had attached to the James River flotilla the ironclad *Onondaga*, really a double turreted monitor of 1,250 tons. The *Onondaga* was virtually the pioneer of the all big gun dreadnought of to-day. She cost the Government \$759,673, and at the conclusion of hostilities was bought back by her builder, George W. Quintard of New York, for that sum. He sold the vessel in 1880 to the French Government and the ship, still named *Onondaga*, was on the active list as a coast guard until a very few years ago.

At the time the *Onondaga* was sold we had building at the shipyard of W. H. Webb of this city the ironclad ram frigate *Dunderberg*, a vessel of 5,000 tons, armed with four 15 inch and twelve 11 inch guns. The ship was a remarkable craft in every particular and reflected in many ways the genius of her designer. The *Dunderberg* was renamed *Rochambeau* by the French Government after her purchase in 1880. The *Rochambeau* never saw any war service, but for years she was considered a formidable ship and a very valuable unit of the French navy.

Most of the old wooden vessels of the navy which have disappeared from the active list and been sold have completely lost their identity as naval craft. In many instances they have proved more profitable to their purchasers when broken up for the sake of their copper bolts and other metals and as material for oak furniture or firewood. Where the hulls have been sound enough for further duty some of these ships have been turned into coal barges.